

## ECS Configuration Change Request

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Page(s)

1. Originator Henry Baez	2. Log Date: 10/7/02	3. CCR #: 02-0878	4. Rev: -	5. Tel: 925-1025	6. Rm #: 2101D	7. Dept. Sys Eng
8. CCR Title: Release as patch "named" binary file to DAAC and SMC.						
9. Originator Signature/Date  /s/ Henry Baez 10/4/2002			10. Class  II	11. Type:  CCR	12. Need Date: 2002-10-08	
13. Office Manager Signature/Date  /s/ James Mather 10/8/02			14. Category of Change: Initial ECS Baseline Doc.		15. Priority: (If "Emergency" fill in Block 27). Routine	
16. Documentation/Drawings Impacted (Review and submit checklist):			17. Schedule Impact:		18. CI(s) Affected: m0fwi09, g0fwi09, n0fwi09, l0fwi09, e0fwi09	
19. Release Affected by this Change: 6A		20. Date due to Customer: 2002-10-14		21. Estimated Cost: None - Under 100K		
22. Source Reference: <input checked="" type="checkbox"/> NCR (attach) <input type="checkbox"/> Action Item <input type="checkbox"/> Tech Ref. <input type="checkbox"/> GSFC <input type="checkbox"/> Other: ECSed35339						
23. Problem: (use additional Sheets if necessary) It was found at the GSFC DAAC that the named binary use on the GSFC firewall has a limitation problem. The ECS network environment is complicated so the firewall configuration has a large number of static routes and aliases. The present named binary at boot up or when restarted asks the AIX OS for the network environment. If the data passed is too large, the named will most of the times fail to start and DNS will not work outbound and inbound.						
24. Proposed Solution: (use additional sheets if necessary) Named binary was first loaded on the VATC firewall. After running for four days with no problems, the binary was loaded on the PVC firewall and ran with no problems for five days. Binary loaded on PVC was done by RTSC following instructions. Input provided by RTSC was incorporated into instructions. Release binary as patch for installation at DAAC and SMC. The named binary uploaded to lemmings - checksum # 1525797834 - size 949239. <u>Installation instructions are attached.</u>						
25. Alternate Solution: (use additional sheets if necessary) Having to delete some unknown number of static routes and aliases to get named to run. Then add the static routes and aliases back to the environment.						
26. Consequences if Change(s) are not approved: (use additional sheets if necessary) Presently only GSFC DAAC is known to be affected for sure. But any of the DAACs could in meeting future requirements grow the AIX environment to a large size that could be impacted at boot or when named was restarted on the firewall. DNS would then impact DAAC communications.						
27. Justification for Emergency (If Block 15 is "Emergency"):						
28. Site(s) Affected: <input type="checkbox"/> EDF <input type="checkbox"/> PVC <input type="checkbox"/> VATC <input checked="" type="checkbox"/> EDC <input checked="" type="checkbox"/> GSFC <input checked="" type="checkbox"/> LaRC <input checked="" type="checkbox"/> NSIDC <input checked="" type="checkbox"/> SMC <input type="checkbox"/> AK <input type="checkbox"/> JPL <input type="checkbox"/> EOC <input type="checkbox"/> IDG Test Cell <input type="checkbox"/> Other						
29. Board Comments:			30. Work Assigned To:		31. CCR Closed Date:	
32. EDF/SCDV CCB Chair (Sign/Date):  /s/ Randall Miller 10/8/02		Disposition: <b>Approved</b> App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ECS				
33. M&O CCB Chair (Sign/Date):  /s/ G. G. Gavigan 10/8/02		Disposition: <b>Approved</b> App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ECS				
34. ECS CCB Chair (Sign/Date):		Disposition: Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ESDIS				

## Replacing NAMED Binary on Firewalls Running Two Instance:

### 1. In GSFC, NSIDC, EDC, and LaRC -

#### 1.1. If file is on CD -

- 1.1.1. Log in as root on the firewall console. Mount the CD on the firewall with the following command: 'mount -oro -v cdrfs /dev/cd0 /mnt'.
- 1.1.2. In one window change directory to /home/bind/bin.
- 1.1.3. In a second window find PID of the running process named with the command: 'ps -ef | grep named'. Get PID of the '/home/bind/bin/named', remember there are two named daemon running on your firewall. Used the 'kill 9 (PID)' to stop the process. This will interrupt DNS services both inbound and outbound for the EMSnet side.
- 1.1.4. Save the old named binary with the following command: 'cp named named.dnsbug'.
- 1.1.5. Copy new named binary with the command: 'cp /mnt/aix/named/named /home/bind/bin/named'.
- 1.1.6. Now restart the named process with the /home/bind/bin/refresh\_named script. Use the '-r' option, '/home/bind/bin/refresh\_named -r' to close out the old log and start a new one /home/bind/logs/named.log.
- 1.1.7. In a third window start to tail named.log with the command 'tail -f /home/bind/logs/named.log'.
- 1.1.8. Check /home/bind/logs/named.log to make sure named started correctly and is listening on the right interfaces based on the /home/bind/etc/named.conf configuration file.
- 1.1.9. In another window change directory to /home/bindmo/bin.
- 1.1.10. In another window find PID of the running process named with the command: 'ps -ef | grep named'. Get PID of the '/home/bindmo/bin/named' this time. Used the 'kill 9 (PID)' to stop the process. This will interrupt DNS services both inbound and outbound for the 'U' or Internet side.
- 1.1.11. Save the old named binary with the following command: 'cp named named.dnsbug'.
- 1.1.12. Copy new named binary with the command: 'cp /mnt/aix/named/named /home/bindmo/bin/named'.
- 1.1.13. In another window start to tail named.log with the command 'tail -f /home/bindmo/logs/named.log'.
- 1.1.14. From the firewall use 'nslookup' to look up both Internet and EMSnet hosts.
- 1.1.15. From inside the firewall use 'nslookup' to look up both Internet and EMSnet hosts.
- 1.1.16. If you can asked other sites outside of the firewall to point to firewall and lookup your host.

#### 1.2. If file is on a host -

- 1.2.1. Log in as root on the firewall console. Copy file to firewall /tmp directory.
- 1.2.2. Change directory to /home/bind/bin.
- 1.2.3. In a second window find PID of the running process named with the command: 'ps -ef | grep named'. Get PID of the '/home/bind/bin/named', remember there are two named daemon running on your firewall. Used the 'kill 9 (PID)' to stop the process. This will interrupt DNS services both inbound and outbound for the EMSnet side.
- 1.2.4. Save the old named binary with the following command: 'cp named named.dnsbug'.
- 1.2.5. Copy new named binary with the command: 'cp /tmp/named /home/bind/bin/named'.

- 1.2.6. Now restart the named process with the `/home/bind/bin/refresh_named` script. Use the `-r` option, `/home/bind/bin/refresh_named -r` to close out the old log and start a new one `/home/bind/logs/named.log`.
- 1.2.7. In another window start to tail `named.log` with the command `'tail -f /home/bind/logs/named.log'`.
- 1.2.8. Check `/home/bind/logs/named.log` to make sure named started correctly and is listening on the right interfaces based on the `/home/bind/etc/named.conf` configuration file.
- 1.2.9. In another window change directory to `/home/bindmo/bin`.
- 1.2.10. In another window find PID of the running process named with the command: `'ps -ef | grep named'`. Get PID of the `'/home/bindmo/bin/named'` this time. Used the `'kill 9 (PID)'` to stop the process. This will interrupt DNS services both inbound and outbound for the 'U' or Internet side.
- 1.2.11. Save the old named binary with the following command: `'cp named named.dnsbug'`.
- 1.2.12. Copy new named binary with the command: `'cp /tmp/named /home/bindmo/bin/named'`.
- 1.2.13. In another window start to tail `named.log` with the command `'tail -f /home/bindmo/logs/named.log'`.
- 1.2.14. From the firewall use `'nslookup'` to look up both Internet and EMSnet hosts.
- 1.2.15. From inside the firewall use `'nslookup'` to look up both Internet and EMSnet hosts.
- 1.2.16. If you can asked other sites outside of the firewall to point to firewall and lookup your host.

## Replacing NAMED Binary on Firewalls Running One Instance:

### 1. In VATC, PVC, and SMC -

#### 1.1. If file is on CD -

- 1.1.1. Log in as root on the firewall console. Mount the CD on the firewall with the following command: 'mount -oro -v cdrfs /dev/cd0 /mnt'.
- 1.1.2. In one window change directory to /home/bind/bin.
- 1.1.3. In a second window find PID of the running process named with the command: 'ps -ef | grep named'. Used the 'kill 9 (PID)' to stop the process. This will interrupt DNS services both inbound and outbound for the site.
- 1.1.4. Save the old named binary with the following command: 'cp named named.dnsbug'.
- 1.1.5. Copy new named binary with the command: 'cp /mnt/aix/named/named /home/bind/bin/named'.
- 1.1.6. Now restart the named process with the /home/bind/bin/refresh\_named script. Use the '-r' option, '/home/bind/bin/refresh\_named -r' to close out the old log and start a new one /home/bind/logs/named.log.
- 1.1.7. In a third window start to tail named.log with the command 'tail -f /home/bind/logs/named.log'.
- 1.1.8. Check /home/bind/logs/named.log to make sure named started correctly and is listening on the right interfaces based on the /home/bind/etc/named.conf configuration file.
- 1.1.9. From the firewall use 'nslookup' to look up both Internet and EMSnet hosts.
- 1.1.10. From inside the firewall use 'nslookup' to look up both Internet and EMSnet hosts.
- 1.1.11. If you can asked other site outside of the firewall to point to firewall and lookup your host.

#### 1.2. If file is on a host -

- 1.2.1. Log in as root on the firewall console. Copy file to firewall /tmp directory.
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- 1.2.3. In a second window find PID of the running process named with the command: 'ps -ef | grep named'. Used the 'kill 9 (PID)' to stop the process. This will interrupt DNS services both inbound and outbound for the site.
- 1.2.4. Save the old named binary with the following command: 'cp named named.dnsbug'.
- 1.2.5. Copy new named binary with the command: 'cp /tmp/named /home/bind/bin/named'.
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- 1.2.7. In a third window start to tail named.log with the command 'tail -f /home/bind/logs/named.log'.
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- 1.2.9. From the firewall use 'nslookup' to look up both Internet and EMSnet hosts.
- 1.2.10. From inside the firewall use use 'nslookup' to look up both Internet and EMSnet hosts.
- 1.2.11. If you can asked other site outside of the firewall to point to firewall and lookup your host.

